WHAT IS CLAIMED IS:

1. A somatic cell gene targeting vector comprising:
   (a) a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless; and
   (b) an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence.

2. The vector of claim 1, wherein the gene targeting construct further comprises a first site-specific recombination sequence for a recombinase and a second site-specific recombination sequence for the recombinase, wherein the first and second site-specific recombination sequences flank the DNA encoding the positive selection marker.

3. The vector of claim 2, wherein the recombinase is Cre recombinase.

4. The vector of claim 2, wherein the first and second site-specific recombination sequences are loxP sequences.

5. The vector of claim 1, wherein the first cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence.

6. The vector of claim 1, wherein the positive selection marker is neomycin phosphotransferase.

7. The vector of claim 1, wherein the first polyadenylation sequence comprises a SV40 polyadenylation sequence.

8. The vector of claim 1, wherein the expression cassette comprises a weak promoter.

9. The vector of claim 1, wherein the expression cassette comprises a promoter that is a phosphoglycerate kinase (PGK) promoter or a modified Rous sarcoma virus (RSV) promoter.

10. The vector of claim 9, wherein the promoter is a modified RSV promoter.

11. The vector of claim 1, wherein the expression cassette comprises a BGH polyadenylation sequence.

12. The vector of claim 1, wherein the negative selection marker is HSV thymidine kinase or diphtheria toxin (DT-A).

13. A method for disrupting a gene of interest in a somatic cell, which method comprises introducing a targeting vector comprising a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless; and an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence, wherein the first cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence, into a somatic cell such that the first genomic target sequence and the second genomic target sequence recombine with the gene to yield a genetically altered cell.

14. The method of claim 13, wherein the vector recombines with the gene *via* homologous recombination

15. The method of claim 13, further comprising identifying the genetically altered cell, wherein the cell's genome comprises the construct and the positive selection marker is expressed.

16. The method of claim 13, wherein the somatic cell is a mammalian cell.

17. The method of claim 16, wherein the mammalian cell is a human cell.

18. The method of claim 13, further comprising introducing a double-stranded oligonucleotide into the somatic cell.

19. The method of claim 18, wherein the double-stranded oligonucleotide is 62 bp.

20. A method for disrupting a gene of interest in a somatic cell, which method comprises:

(a) introducing a targeting vector comprising a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless; and an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence, wherein the first cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence, into the somatic cell such that the first genomic target sequence

and the second genomic target sequence recombine with the gene to yield a first genetically altered cell; and

(b) introducing a recombinase to the first genetically altered cell, such that the positive selection marker is removed from the construct to yield a second genetically altered cell.

21. The method of claim 20, wherein the vector recombines with the gene *via* homologous recombination.

22. The method of claim 20, further comprising identifying the first genetically altered cell, wherein the cell's genome comprises the construct and the positive selection marker is expressed.

23. The method of claim 22, further comprising identifying the second genetically altered cell.

24. The method of claim 20, wherein the somatic cell is a mammalian cell.

25. The method of claim 24, wherein the mammalian cell is a human cell.

26. The method of claim 20, further comprising introducing a double-stranded oligonucleotide into the somatic cell.

27. The method of claim 26, wherein the double-stranded oligonucleotide is 62 bp.

28. An isolated cell prepared by the method of claim 13.

29. An isolated cell prepared by the method of claim 20.

30. A somatic cell comprising the vector of claim 1.

31. The somatic cell of claim 30, wherein the cell is a B cell or a fibroblast cell.